# National Climatic Data Center

# DATA DOCUMENTATION

# FOR

# DATA SET 9712A (DSI-9712A)

Last Spring and First Fall Freeze Dates, 1931-1960

## December 26, 2002

National Climatic Data Center
151 Patton Ave.
Asheville, NC 28801-5001 USA

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**1. Abstract:** The major parameters that make up the Freeze Date file are dates (Year, month, day) of the last occurrence in Spring and the first occurrence in Fall where temperatures were less than or equal to 32, 28, 20, and 16 degrees Fahrenheit. The selection of freeze dates was performed for only those US states for which revisions were made to the publication "Climate of the States." As a result, only a subset of US states is represented in this data set. These include Arizona, California, Colorado, Delaware, Iowa, Maryland, Michigan, New Jersey, Oregon, Washington, and Alaska. The status of the other US states is unknown.

Yearly values of the last Spring and first Fall occurrence of selected low temperatures were performed for the period 1931 through 1960. All years are not available for each station. The last Spring freeze dates were based upon the season January 1 through June 30 (Eg. Last spring freeze for 1931 was based upon the time period January 1, 1931 through June 30, 1931). The first Fall freeze dates were based upon the season July 1 through December 31 (Eg. First Fall freeze for 1931 was based upon the time period July 1, 1931 through December 31, 1931).

**2. Element Names and Definitions:**

The data are archived in a fixed length ASCII format. The total data volume is 2 megabytes. The data are sorted by the state number (ISTATE) as the primary key followed by station number (ISTATN), and year (IYEAR) as secondary keys. The following are FORTRAN statements and element characteristics that can be used to read these data:

| Element | Type | Width | Start Column | End Column |
|---|---|---|---|---|
| ISTATE | Integer | 2 | 1 | 2 |
| ISTATN | Integer | 4 | 3 | 6 |
| IYEAR | Integer | 2 | 7 | 8 |
| ISPRNG(1) | Integer | 4 | 9 | 12 |
| ISPRNG(2) | Integer | 4 | 13 | 16 |
| ISPRNG(3) | Integer | 4 | 17 | 20 |
| ISPRNG(4) | Integer | 4 | 21 | 24 |
| ISPRNG(5) | Integer | 4 | 25 | 28 |
| Not Used | | 10 | 29 | 38 |
| IFALL(1) | Integer | 4 | 39 | 42 |
| IFALL(2) | Integer | 4 | 43 | 46 |
| IFALL(3) | Integer | 4 | 47 | 50 |
| IFALL(4) | Integer | 4 | 51 | 54 |
| IFALL(5) | Integer | 4 | 55 | 58 |
| Not Used | | 22 | 59 | 80 |

| Element Name | Element Definition |
|---|---|
| ISTATE | Characters 1-2<br>Cooperative State code number.<br>Range: 02 (AZ), 04 (CA), 05 (CO), 07 (DE), 13 (IA), 18 (MD), 20 (MI), 28 (NJ), 35 (OR), 45 (WA), 50 (AK). See "Known Uncorrected Problems. |
| ISTATN | Characters 3-6<br>Cooperative Station code number.<br>Range 0001-9999. |

| | |
|---|---|
| IYEAR | Characters 7-8<br>This is the year of the occurrence of the last Spring or first Fall freeze season within the specified threshold. (E.g., Spring season for 1931 runs from January 1, 1931 through June 30, 1931. (E.g., Fall season for 1931 runs from July 1, 1931 through December 31, 1931)<br>Range 31-60. |
| LAST-SPRING-FREEZE-16<br>ISPRNG(1) | Characters 9-12<br>This is the date (month/day) of the occurrence of the last Spring freeze where the temperature was less than or equal to 16 degrees Fahrenheit. A value of "0100" indicates the minimum temperature did not reach or exceed the freeze threshold for the specified year. This field is blank when periods of missing minimum temperature recordings made it impossible to determine the date of a critical threshold temperature.<br>Month - 2 characters, Range 01-06, blank<br>Day - 2 characters, Range 01-31,00,blank |
| LAST-SPRING-FREEZE-20<br>ISPRNG(2) | Characters 13-16<br>This is the date (month/day) of the occurrence of the last Spring freeze where the temperature was less than or equal to 20 degrees Fahrenheit. |
| LAST-SPRING-FREEZE-24<br>ISPRNG(3) | Characters 17-20<br>This is the date (month/day) of the occurrence of the last Spring freeze where the temperature was less than or equal to 24 degrees Fahrenheit. |
| LAST-SPRING-FREEZE-28<br>ISPRNG(4) | Characters 21-24<br>This is the date (month/day) of the occurrence of the last Spring freeze where the temperature was less than or equal to 28 degrees Fahrenheit. |
| LAST-SPRING-FREEZE-32<br>ISPRNG(5) | Characters 25-28<br>This is the date (month/day) of the occurrence of the last Spring freeze where the temperature was less than or equal to 32 degrees Fahrenheit. |
| Not Used (blank) | Characters 29-38 |
| FIRST-FALL-FREEZE-32<br>IFALL(1) | Characters 39-42<br>This is the date (month/day) of the occurrence of the first Fall freeze where the temperature was less than or equal to 32 degrees Fahrenheit. The first Fall freeze dates are chosen from the period July 1 through December (E.g., the Fall freeze period for 1931 runs from July 1, 1931 through December 31, 1931). A value of "1232" indicates |

| | |
|---|---|
| | the minimum temperature did not reach or exceed the freeze threshold for the specified year.<br>Month - 2 characters,Range 07-12, blank<br>Day - 2 characters,Range 01-31,32, blank |
| FIRST-FALL-FREEZE-28 IFALL(2) | Characters 43-46<br>This is the date (month/day) of the occurrence of the first Fall freeze where the temperature was less than or equal to 28 degrees Fahrenheit. |
| FIRST-FALL-FREEZE-24 IFALL(3) | Characters 47-50<br>This is the date (month/day) of the occurrence of the first Fall freeze where the temperature was less than or equal to 24 degrees Fahrenheit. |
| FIRST-FALL-FREEZE-20 IFALL(4) | Characters 51-54<br>This is the date (month/day) of the occurrence of the first Fall freeze where the temperature was less than or equal to 20 degrees Fahrenheit. |
| FIRST-FALL-FREEZE-16 IFALL(5) | Characters 55-58<br>This is the date (month/day) of the occurrence of the first Fall freeze where the temperature was less than or equal to 16 degrees Fahrenheit. |
| Not Used (blank) | Characters 59-80 |

3. **Start Date**: 19310101. All stations do not have data beginning with 1931.

4. **Stop Date**: 19601231. All stations do not have data ending with 1960.

5. **Coverage**: the contiguous United States

   a. Southernmost Latitude: 18N
   b. Northernmost Latitude: 65N
   c. Westernmost Longitude: 160W
   d. Easternmost Longitude: 65W

6. **How to Order Data**:

   Ask NCDC's Climate Services about the cost of obtaining this data set.
   Phone: 828-271-4800
   FAX: 828-271-4876
   E-mail: NCDC.Orders@noaa.gov

7. **Archiving Data Center**:

   National Climatic Data Center
   Federal Building
   151 Patton Avenue
   Asheville, NC 28801-5001
   Phone: (828) 271-4800.

**8. Technical Contact:**

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Federal Building
151 Patton Avenue
Asheville, NC 28801-5001
Phone: (828) 271-4800.

**9. Known Uncorrected Problems:** Only a subset of US states is represented in this data set. These include Arizona, California, Colorado, Delaware, Iowa, Maryland, Michigan, New Jersey, Oregon, Washington, and Alaska. The status of the other US states is unknown. This data set should be used with caution. If possible, it is recommended that a similar freeze date data set be used. This file contains data for 1951-1980 and is archived in DSI-9712b.

**10. Quality Statement:** This data set should be used with caution. The last Spring and first Fall freeze dates were generated from data which contained missing daily minimum temperatures. It is also possible that the temperature data were not quality controlled prior to generating the freeze dates. Significant biases may have occurred because of these factors.

If possible, it is recommended that a similar freeze date data set be used. This file contains data for the 1951-1980 period and is located in DSI-9712b.

**11. Essential Companion Datasets:** The use of NCDC's Station History file (DSI-9767) is required in order to determine metadata on each station (name, location, elevation, etc.). This can be accomplished by comparing the station number in bytes 1 through 6 of this data set with the corresponding station number in the Station History data set.

**12. References:**

Card Deck Reference Manual 948: Freeze Data, February 1968. National Oceanic and Atmospheric Administration, NCDC, Asheville, NC. 3 pp.